

S/N 10/597660

In response to the Office Action dated November 13, 2009

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FEB 12 2010****Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Canceled)
2. (Currently Amended) A remote ultrasonic diagnostic examiner-side apparatus that is used in a remote ultrasonic diagnostic system, comprising: an examiner-side apparatus by which an examiner performs a diagnosis with respect to a subject in a remote location via a communication line by using an ultrasonic image; and the subject-side apparatus on the subject side,
the examiner-side apparatus comprising:
a communication line interface that receives, during a live mode, an ultrasonic image data in real time that is transmitted via a communication line, and requests, after freezing, a communication line interface of the subject-side apparatus to retransmit a frame to be reproduced ~~so as to retransmit the frame~~ via the communication line, every time ~~after freezing~~ when moving a pointer that designates the frame to be reproduced from a cine memory that sequentially stores an ultrasonic signal received by an ultrasonic wave transmission/reception portion of the subject-side apparatus per each frame;
an image formation portion that forms an ultrasonic image using the ultrasonic image data received in real time or the retransmitted frame; and
a displaying means that displays the ultrasonic image that is formed by the image formation portion.
3. (Currently Amended) A remote ultrasonic diagnostic system in which ~~[[the]]~~ a remote ultrasonic diagnostic subject-side apparatus ~~according to Claim 1~~ and ~~[[a]]~~ the remote ultrasonic diagnostic examiner-side apparatus according to claim 2 are connected via a communication line,
the subject-side apparatus comprising:

S/N 10/597660

In response to the Office Action dated November 13, 2009

an ultrasonic wave transmission/reception portion that transmits an ultrasonic echo that is generated from an electroacoustic converting means driven by a transmission pulse, and receives an ultrasonic echo reflected by an inside of the subject;

an image generation portion that generates ultrasonic image data from an ultrasonic signal that is received by the ultrasonic wave transmission/reception portion;

a cine memory that sequentially stores the ultrasonic signal that is received by the ultrasonic wave transmission/reception portion per each frame; and

a communication line interface that transmits the ultrasonic image data generated at the image generation portion via a communication line, and reproduces, from the cine memory, the frame that is requested to be retransmitted by the examiner-side apparatus after freezing, and retransmits the frame to the examiner-side apparatus via the communication line.

~~the remote ultrasonic diagnostic examiner-side apparatus comprising:~~

~~a communication line interface that receives an ultrasonic image data that is transmitted via a communication line, and requests a communication line interface of the subject-side apparatus to retransmit a frame to be reproduced so as to retransmit the frame via the communication line, every time after freezing when moving a pointer that designates the frame to be reproduced from a cine memory that sequentially stores an ultrasonic signal received by an ultrasonic wave transmission/reception portion of the subject-side apparatus per each frame;~~

~~an image formation portion that forms an ultrasonic image using the ultrasonic image data or the retransmitted frame; and~~

~~a displaying means that displays the ultrasonic image that is formed by the image formation portion.~~

4-6. (Canceled)

7. (Currently Amended) A remote ultrasonic diagnostic examiner-side apparatus that is used in a remote ultrasonic diagnostic system, comprising: an examiner-side apparatus by which an examiner performs a diagnosis with respect to a subject in a

S/N 10/597660

In response to the Office Action dated November 13, 2009

remote location via a communication line by using an ultrasonic image; and the subject-side apparatus on the subject side,

the examiner-side apparatus comprising:

a communication line interface that receives, during a live mode, an image data in real time that is transmitted via a communication line, and receives, after freezing, a frame that is retransmitted from a communication line interface of the subject-side apparatus via the communication line, ~~after freezing~~;

an image formation portion that forms an ultrasonic image using the ultrasonic image data received in real time or the retransmitted frame; and

a displaying means that displays the ultrasonic image that is formed by the image formation portion.

8. (Currently Amended) A remote ultrasonic diagnostic system in which ~~[[the]]~~ a remote ultrasonic diagnostic subject-side apparatus ~~according to Claim 6~~ and ~~[[a]]~~ the remote ultrasonic diagnostic examiner-side apparatus according to claim 7 are connected via a communication line,

the subject-side apparatus comprising:

an ultrasonic wave transmission/reception portion that transmits an ultrasonic echo that is generated from an electroacoustic converting means driven by a transmission pulse, and receives an ultrasonic echo reflected by an inside of the subject;

an image generation portion that generates ultrasonic image data from an ultrasonic signal that is received by the ultrasonic wave transmission/reception portion;

a cine memory that sequentially stores the ultrasonic signal that is received by the ultrasonic wave transmission/reception portion per each frame;

a displaying means that reproduces, from the cine memory, the frame that is requested to be retransmitted in the subject-side apparatus after freezing, and displaying the frame as an ultrasonic image; and

a communication line interface that transmits the ultrasonic image data generated at the image generation portion via a communication line, and retransmits the frame that corresponds to the ultrasonic image displayed on the displaying means to the examiner-side apparatus via the communication line.

S/N 10/597660

In response to the Office Action dated November 13, 2009

~~the remote ultrasonic diagnostic examiner-side apparatus comprising:~~
~~a communication line interface that receives an image data that is transmitted via~~
~~a communication line, and receives a frame that is retransmitted from a communication~~
~~line interface of the subject-side apparatus via the communication line, after freezing;~~
~~an image formation portion that forms an ultrasonic image using the ultrasonic~~
~~image data or the retransmitted frame; and~~
~~a displaying means that displays the ultrasonic image that is formed by the image~~
~~formation portion.~~

9-14. (Canceled)

15. (Currently Amended) A remote ultrasonic diagnostic examiner-side apparatus that is used in a remote ultrasonic diagnostic system, comprising: an examiner-side apparatus by which an examiner performs a diagnosis with respect to a subject in a remote location via a communication line by using an ultrasonic image; and the subject-side apparatus on the subject side,

the examiner-side apparatus comprising:

a communication line interface that receives, during a live mode, an image data in real time that is transmitted via a communication line, and requests, after freezing, a communication line interface of the subject-side apparatus to retransmit a frame to be reproduced ~~and retransmits the frame~~ via the communication line, every time ~~after freezing~~ when moving a pointer that designates the frame to be reproduced from a cine memory that sequentially stores an ultrasonic signal received by an ultrasonic wave transmission/reception portion of the subject-side apparatus per each frame;

an image formation portion that comprises a scan converting means that converts the number of scanning lines of an ultrasonic image data of the ultrasonic image data received in real time or the retransmitted frame, and forms an ultrasonic image by the scan converting means; and

a displaying means that displays the ultrasonic image that is formed by the image formation portion.

S/N 10/597660

In response to the Office Action dated November 13, 2009

16. (Currently Amended) A remote ultrasonic diagnostic system in which ~~[[the]]~~ a remote ultrasonic diagnostic subject-side apparatus ~~according to Claim 14~~ and ~~[[a]]~~ the remote ultrasonic diagnostic examiner-side apparatus ~~according to claim 15~~ are connected via a communication line, the remote ultrasonic diagnostic examiner-side apparatus comprising:

the subject-side apparatus comprising:

an ultrasonic wave transmission/reception portion that transmits an ultrasonic echo that is generated from an electroacoustic converting means driven by a transmission pulse, and receives an ultrasonic echo by being reflected by an inside of the subject;

an image generation portion that generates ultrasonic image data by performing a filtering process with respect to an ultrasonic signal that is received by the ultrasonic wave transmission/reception portion;

a cine memory that sequentially stores the ultrasonic signal that is received by the ultrasonic wave transmission/reception portion per each frame; and

a communication line interface that transmits the ultrasonic image data generated at the image generation portion via a communication line, and reproduces, from the cine memory, the frame that is requested to be retransmitted by the examiner-side apparatus after freezing, and retransmits the frame to the examiner-side apparatus via the communication line.

~~a communication line interface that receives an image data that is transmitted via a communication line, and requests a communication line interface of the subject-side apparatus to retransmit a frame to be reproduced and retransmits the frame via the communication line, every time after freezing when moving a pointer that designates the frame to be reproduced from a cine memory that sequentially stores an ultrasonic signal received by an ultrasonic wave transmission/reception portion of the subject-side apparatus per each frame;~~

~~an image formation portion that comprises a scan converting means that converts the number of scanning lines of an ultrasonic image data of the ultrasonic image data or the retransmitted frame, and forms an ultrasonic image by the scan converting means; and~~

S/N 10/597660

In response to the Office Action dated November 13, 2009

~~a displaying means that displays the ultrasonic image that is formed by the image formation portion.~~